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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,146	10/29/2003	Michael B. Galles	062986.0296	5506

5073 7590 03/23/2005

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EXAMINER

TREAT, WILLIAM M

ART UNIT PAPER NUMBER

2183

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/696,146

Applicant(s)

GALLES ET AL.

Examiner

William M. Treat

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. Claims 1-20 are presented for examination.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2 and 4-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kabemoto et al. (Patent No. 5,890,217).
4. The examiner would suggest applicants read col. 16, line 5 through col. 20, line 18 and col. 28, line 55 through col. 29, line 10, at a minimum, before responding.
5. The arguments and rejections presented in the examiner's previous rejections in parent application 09/418,520 continue and are hereby incorporated by reference.
6. Claims 1-2, 5-6, 9-11 and 13-17 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Chase et al. (Patent No. 5,944,780).
7. The examiner would suggest applicants read (col. 5, line 30 through col. 6, line 20; col. 7, lines 44-61; and col. 8, lines 42-48), at a minimum, before responding.
8. The arguments and rejections presented in the examiner's previous rejections in parent application 09/418,520 continue and are hereby incorporated by reference.
9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 3, 10, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chase et al. (Patent No. 5,944,780).

12. The arguments and rejections presented in the examiner's previous rejections in parent application 09/418,520 (in relation to claims 10, 18, and 20) continue and are hereby incorporated by reference.

13. As to claim 3, Chase taught the invention of independent claims 1 and 2 from which claim 3 depends (see paragraphs 6-8, *supra*). He did not teach overwriting the oldest memory reference with a new memory reference upon reaching a buffer limit nor any specific replacement strategy for such a situation. However, the examiner takes Official Notice of the fact that the least-recently-used method of replacement in caches is old, well-known, and one of the conventional methods of cache replacement. In fact, there are at least 267 patents making reference to it as a replacement strategy in subclass 711/133, alone, with the oldest one having been issued a quarter century ago. One of ordinary skill would be motivated to use the least-

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recently-used replacement strategy with Chase because it is a conventional method which is well-known and well-understood by those of ordinary skill and is, therefore, easily and reliably implemented.

14. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kabemoto et al. (Patent No. 5,890,217).

15. As to claim 3, Kabemoto taught the invention of independent claims 1 and 2 from which claim 3 depends (see paragraphs 6-8, *supra*). He did not teach overwriting the oldest memory reference with a new memory reference upon reaching a buffer limit nor any specific replacement strategy for such a situation. However, the examiner takes Official Notice of the fact that the least-recently-used method of replacement in caches is old, well-known, and one of the conventional methods of cache replacement. In fact, there are at least 267 patents making reference to it as a replacement strategy in subclass 711/133, alone, with the oldest one having been issued a quarter century ago. One of ordinary skill would be motivated to use the least-recently-used replacement strategy with Chase because it is a conventional method which is well-known and well-understood by those of ordinary skill and is, therefore, easily and reliably implemented.

16. The examiner would note that applicants' claims include claims 1-2, 4-6, 9-11, 13-18, and 20 which were all presented in the parent application (though sometimes with different claim numbers), were all rejected in the parent application, and were all cancelled in the parent application.

17. This is a continuation of applicant's earlier Application No. 09/418,520. All claims are drawn to the same invention claimed in the earlier application and could have been finally

rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

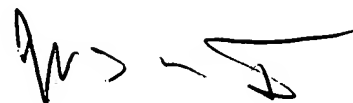
18. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

19. Any inquiry concerning this communication should be directed to William M. Treat at telephone number 703 305 9699. After Oct. 12, 2004, the examiner's phone number should be changed to (571) 272-4175. The examiner works at home on Wednesdays but may normally be reached on Wednesdays by leaving a voice message using his office phone number. The examiner also works a flexible schedule but may normally be reached in the afternoon and evening on three of the four remaining weekdays.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'W. M. Treat', with a stylized flourish at the end.

**WILLIAM M. TREAT
PRIMARY EXAMINER**